REMARKS

1. Status of Claims

Claims 1-14 have been rejected in the Office Action of February 23, 2005. Claims 1-14 are pending. Accordingly, applicant respectfully requests reconsideration and allowance of the application in view of the following remarks.

2. Section 103(a) Rejection Over Banker (U.S. Patent No. 5,247,364) in View of Bacon et al. (U.S. Patent No. 5,440,632)

Claims 1-6, 10 and 13-14 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,247,364 to Banker et al. ("Banker") in view of U.S. Patent No. 5,440,632 to Bacon et al. ("Bacon").

The three basic criteria for establishing a prima facie case of obviousness, set forth in MPEP § 706.02(j), are listed below:

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicant respectfully submits that the criteria mentioned above are not met because Banker in view of Bacon does not disclose or suggest all of the claimed elements of applicant's invention; therefore a *prima facie* case of obviousness has not been established.

Claim 1 recites the steps of "transmitting a signal on an out-of-band channel to be received by the set top box, the signal indicating an in-band service channel frequency; receiving the signal at the set top box to identify the in-band service channel frequency; receiving signals over the in-band service channel frequency to initiate the set top box; and identifying the set top box to the cable system by transmitting signals from the set top box via a return path." (emphasis added).

Claim 1 is not obvious in light of Banker or Bacon because Banker appears to merely disclose use of a dedicated channel to transmit addressable commands intended for a particular out-of-band subscriber terminal and global commands intended for all out-of-band subscriber terminals in the system, and Bacon appears to merely disclose allowing a subscriber of a subscription television system to be reprogrammed through a download program code parameters transaction. Neither Banker nor Bacon, however, disclose or suggest "sending an out-of-band (OOB) message that includes the location of the frequency of the DOCSIS in-band channel . . . [which] reduces the scanning time or hunting time of the AST." [*Paragraph 0019*] In fact, with respect to out-of-band transmissions, Banker only fleetingly addresses such transmission in that "[u]nlike the in-band transactions described in detail below, out-of-band subscriber terminals receive data over this channel no matter what channel the subscriber terminal is tuned to." [*Col. 2, ll. 65-69*] Banker appears to explicitly differentiate out-of-band systems from in-band systems.

Additionally, the Examiner states that, with respect to Banker and Bacon, "the combined teachings does not explicitly disclose the frequency sweeping of the out-of-band frequency range," but "it would have been clearly obvious . . . to implement the combined teaching with the frequency sweeping of the out-of-band frequency range so as to locate the control signal." [*Office Action, p. 6*] (emphasis added) Applicant respectfully and strongly disagrees with this assertion. The Examiner, in fact, states that Banker fails to explicitly disclose "receiving signals over the in-band service channel frequency to initialize the set top box" or "identifying the set top box to the cable system by transmitting signals from the set top box via a return path" [*Office Action, p.3*] Applicant respectfully submits that Banker also fails to imply such a disclosure.

Applicant's invention includes "transmitting a signal on an out-of-band channel to be received by the set top box, the signal indicating an in-band service channel frequency" because "there is a significant savings in time over searching for the in-band DOCSIS channel because OOB [out-of-band] channels are usually bandwidth limited." [*Paragraph 0021*]. This is a problem that is neither suggested nor disclosed by Banker or Bacon, but which Applicant both specifically discloses and addresses. If recognition of the source of the problem is not taught or suggested by the prior art, a rejection for prima facie obviousness is defective even if the solution claimed would have otherwise been obvious. Eibel Process Co.

v. Minnesota & Ontario Paper Co., 261 U.S. 45, 68 (1923). Applicant respectfully submits that the discovery of the problem AND its remedy are an unobvious advance in the art.

Examiner states that "the combined teachings do not explicitly disclose the frequency sweeping of the out-of-band frequency range" and that it would "be clearly obvious to one of ordinary skill in the art to implement the combined teaching with the frequency sweeping of the out-of-band frequency range so as to locate the control signal". [*Office Action, p.6*] Applicant respectfully disagrees; as stated previously, "sending an out-of-band (OOB) message that includes the location of the frequency of the DOCSIS in-band channel" is neither suggested and disclosed in the combined teachings, which as importantly solves a significant problem unaddressed implicitly or explicitly by the combined teachings.

Claim 1 is not obvious in light of Banker in view of Bacon because the references fail to disclose or suggest the use of, in particular, "transmitting a signal on an out-of-band channel to be received by the set top box, the signal indicating an in-band service channel frequency." Moreover, claims 2-6 and 10 are dependent on independent claim 1 and likewise include "transmitting a signal on an out-of-band channel to be received by the set top box, the signal indicating an in-band service channel frequency."[1]

The Examiner, however, "gives OFFICIAL NOTICE that it is notoriously well known in the art to use DOCSIS so as to provide the specifics of the relationship between customer premises equipment and the CMTS (Cable Modem Termination System) at the head-end of the service provider's network." [*Office Action, p.5*] Applicant respectfully traverses such a finding because of the abundance of numerous existing specifications for digital audio-visual technologies in light of Applicant addressing the problems and drawbacks in the prior art.

Likewise, Applicant respectfully traverses the finding by Examiner giving "OFFICIAL NOTICE that it is notoriously well known in the art to use DAVIC so as to provide the specifications of open interfaces and protocols that maximizes the interoperability across countries and application/services" and "use of UDP/IP packets" for the same reasons as set forth above.

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[1] Applicant presumes that Examiner makes reference to Banker even though, with respect to claims 2, 3 and 6, Examiner references to "Leary reference", which Applicant has disqualified as prior art. If such reference is an additional reference, Applicant requests that the Examiner clarify.

Claims 13-14 are dependent on claim 11, which includes "a trace and route message containing an in-band service channel frequency and other service channel parameters, the message being transmittable by the DAC to the set top box via the OM,"[2] wherein the OM is an "out-of-band modulator." Again, there is a significant savings in time over searching in-band channels because out-of-band channels are usually bandwidth limited. Additionally, "the out-of-band channel has fewer parameters needed by the ASTB to look into the OOB [out-of-band] channel." [*Paragraph 0021*]

Thus, it would not have been obvious at the time of Applicant's invention to one of ordinary skill in the art to use Banker in view of Bacon to achieve Applicant's invention. Accordingly, claims 1-6, 10 and 13-14 are not rendered obvious for at least the reasons set out above; these claims are thus patentable.

3. Section 103(a) Rejection Over Banker (U.S. Patent No. 5,247,364) in View of Bacon et al. (U.S. Patent No. 5,440,632) and Hendricks et al. (U.S. Patent No. 5,990,927)

Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as being obvious over Banker in view of Bacon and U.S. Patent No. 5,990,927 to Hendricks et al. ("Hendricks").

Applicant respectfully submits that the criteria mentioned above are not met because Banker in view of Bacon and Hendricks does not disclose or suggest all of the claimed elements of applicant's invention; therefore a *prima facie* case of obviousness has not been established.

As stated previously, Banker appears to merely disclose use of a dedicated channel to transmit addressable commands intended for a particular out-of-band subscriber terminal and global commands intended for all out-of-band subscriber terminals in the system, and Bacon appears to merely disclose allowing a subscriber of a subscription television system to be reprogrammed through a download program code parameters transaction.

Hendricks appears to merely disclose a set top converter box for a television program delivery system, wherein the "set top terminal receives the individually compressed program

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[2] Applicant presumes that Examiner makes reference to Banker even though, with respect to claims 13 and 14, Examiner references the "Leary reference", which Applicant has disqualified as prior art. If such reference is an additional reference, Applicant requests that the Examiner clarify.

and control signals, [thereafter] the signals are demultiplexed, decompressed, converted to analog signals (if necessary) and either placed in local storage . . . , executed immediately, or sent directly to the television screen." [*Col. 10, ll. 52-58*] Furthermore, the control information signal is sent to the set top terminal "in the form of a set top terminal control information stream." [*Col. 13, 11. 49-50*] In fact, the Examiner states that the "combined teaching fails to explicitly disclose the step of authorizing a digital access controller before or after the step of transmitting the out-of-band control signal." [*Office Action p.7*] Applicant additionally submits that the combined teachings fail to imply such a disclosure.

Claims 7-9 are not obvious in light of Banker in view of Bacon and Hendricks because the references fail to disclose or suggest "transmitting a signal on an out-of-band channel to be received by the set top box, the signal indicating an in-band service channel frequency" as indicated in claim 1 due to the fact that "there is a significant savings in time over searching for the in-band DOCSIS channel because OOB [out-of-band] channels are usually bandwidth limited," a problem neither suggested nor disclosed by Banker, Bacon and Hendricks. Claims 7-9 are dependent on claim 1 and, as such, include the above referenced limitation.

Thus, it would not have been obvious at the time of Applicant's invention to one of ordinary skill in the art to use Banker in view of Bacon and Hendricks to achieve Applicant's invention. Accordingly, claims 7-9 are not rendered obvious for at least the reasons set out above; these claims are thus patentable.

4. Section 103(a) Rejection Over Banker (U.S. Patent No. 5,247,364) in View Hendricks et al. (U.S. Patent No. 5,990,927)

Claims 11-12 stand rejected under 35 U.S.C. § 103(a) as being obvious over Banker view of Hendricks.

Applicant respectfully submits that the criteria mentioned above are not met because Banker in view of Hendricks does not disclose or suggest all of the claimed elements of applicant's invention; therefore a *prima facie* case of obviousness has not been established.

Claim 11 is not obvious in light of Bacon and Hendricks because they fail to disclose or suggest "a trace and route message containing an in-band service channel frequency and other service channel parameters, the message being transmittable by the DAC to the set top

box via the OM; and means for decoding the trace and route message at the set top box to determine the in-band service channel frequency."

Hendricks merely discloses a network controller that "performs the system control functions for the system" and "process signals received from the set top terminals" [*Col. 9, ll. 31-35*] Claim 11 is not obvious in light of Banker and Hendricks because they fail to disclose or suggest a trace and routing message that contains an in-band channel frequency and means for decoding the trace and route message to determine in-band service channel frequency.[3] Again, Banker appears to explicitly differentiate out-of-band systems from in-band systems, which does not address or remedy the problems contemplated by applicant's invention.

Thus, it would not have been obvious at the time of applicant's invention to one of ordinary skill in the art to use Banker in view of the set top converter box for a television program delivery system taught by Hendricks to achieve applicant's invention. Accordingly, claim 11 and claim 12, which is dependent on claim 11, are not rendered obvious for at least the reasons set out above; these claims are thus patentable.

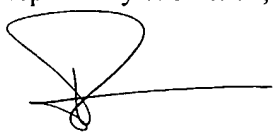
CONCLUSION

It is respectfully submitted that all claims in the application are now allowable. Reconsideration and withdrawal of the pending rejections are respectfully requested. Early and favorable notice to this effect is earnestly solicited.

[3] Applicant presumes that Examiner makes references to Banker in Examiner's rejection of claim 11 even though Examiner references the "Leary reference". Applicant requests clarification if such reference is an additional reference.

If the Examiner does not consider all of the pending claims allowable, the undersigned respectfully requests an interview with the Examiner to discuss the merits of the case.

Respectfully submitted,



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